UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to:
2004/00088

April 19, 2004

Mr. Jeff Blackwood
USDA Forest Service
Umatilla National Forest
2517 S.W. Hailey Avenue
Pendleton, OR 97801

Re: Endangered Species Act Section 7 Formal Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Proposed North Fork Touchet River Paving Project, Walla Walla Ranger District, Umatilla National Forest, Walla Walla River Subbasin, Columbia County, Washington.

Dear Mr. Blackwood:

Enclosed is a document prepared by NOAA's National Marine Fisheries Service (NOAA Fisheries) pursuant to section 7 of the Endangered Species Act that addresses the proposed North Fork Touchet River Paving Project, in the Walla Walla Ranger District of Umatilla National Forest, Walla Walla River subbasin, Columbia County, Washington. NOAA Fisheries concludes in this biological opinion (Opinion) that the proposed action is not likely to jeopardize Middle Columbia River (MCR) steelhead (*Oncorhynchus mykiss*). This Opinion includes reasonable and prudent measures with terms and conditions that NOAA Fisheries believes are necessary and appropriate to minimize the potential for incidental take associated with this project.

This document also serves as consultation on essential fish habitat (EFH) pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act and implementing regulations at 50 CFR Part 600. The Walla Walla subbasin has been designated as EFH for chinook salmon (*O. tshawytscha*).

If you have any questions regarding this consultation please contact Brett Farman, of my staff in the Oregon State Habitat Office, at 541.975.1835, ext. 228.

Sincerely,

for Michael R Crouse

D. Robert Lohn
Regional Administrator

cc: Mary Gibson, USFS
John Kinney, USFWS
Al Scott, USFS
Dave Crabtree, USFS
Glen Mendel, WDFW

Endangered Species Act - Section 7 Consultation
Biological Opinion

&

Magnuson-Stevens Fishery Conservation and Management Act
Essential Fish Habitat Consultation

North Fork Touchet River Paving Project,
Walla Walla Ranger District, Umatilla National Forest,
Walla Walla River Subbasin, Columbia County, Washington

Agency:	Forest Service
Consultation Conducted By:	National Marine Fisheries Service, Northwest Region
Date Issued:	April 19, 2004
Issued by:	F.r Michael R Course _____ D. Robert Lohn Regional Administrator
Refer to:	**2004/00088**

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1. INTRODUCTION

The Endangered Species Act (ESA) of 1973 (16 USC 1531-1544), as amended, establishes a national program for conserving threatened and endangered species of fish, wildlife, plants, and the habitat on which they depend. Section 7(a)(2) of the ESA requires Federal agencies to consult with NOAA's National Marine Fisheries Service (NOAA Fisheries) and U.S. Fish and Wildlife Service (together "Services"), as appropriate, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their designated critical habitats. This biological opinion (Opinion) is the product of an interagency consultation pursuant to section 7(a)(2) of the ESA and implementing regulations 50 CFR 402.

The analysis also fulfills the essential fish habitat (EFH) requirements under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The MSA, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established procedures designed to identify, conserve, and enhance EFH for those species regulated under a Federal fisheries management plan. Federal agencies must consult with NOAA Fisheries on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH (section 305(b)(2)).

The USDA Forest Service, Umatilla National Forest (UNF), proposes to carry out the North Fork Touchet River Road (Forest Service Road (FR) 64) Paving Project. The administrative record for this consultation is on file at the Oregon State Habitat Office.

1.1 Background and Consultation History

In 1999, the UNF consulted with NOAA Fisheries on the effects of the Ski Bluewood Road Use Permit (refer to: SRB00-0006). As a conservation recommendation, NOAA Fisheries suggested that the UNF work with the permittee to pave the Ski Bluewood access road (FR 64) and parking lot.

In 2003, the UNF began preparing for the paving project by replacing the ditch relief culverts on FR 64. A separate consultation was done for the ditch relief culverts portion of the project (NOAA Fisheries No.: 2003/00130) to allow the UNF to proceed while funding was available. In the ditch relief culverts consultation, the UNF indicated that additional actions would be addressed in a multi-action biological assessment (BA) at a later date. This Opinion addresses those additional actions.

NOAA Fisheries received a letter requesting formal ESA section 7 consultation on the North Fork Touchet River Road (FR 64) Paving Project (Project) on January 30, 2004. Attached were a complete BA and an EFH assessment for this project, and consultation was initiated. Early consultation for this project followed the process described in the *Streamlining Consultation Procedures Under Section 7 of the Endangered Species Act* (USDA Forest Service, NOAA Fisheries, Bureau of Land Management, and U.S. Fish and Wildlife Service 1999). As such,

NOAA Fisheries was involved in project development, reviewed drafts of the BA, and provided comments before its final submission.

FR 64 is a gravel, two-lane road that provides access for forest recreational use such as the Ski Bluewood downhill ski resort. The gravel surface of FR 64 is a source of fine sediment to the North Fork Touchet River during periods of runoff. Relatively heavy traffic in the winter and spring increases sediment mobilization on the surface of the road during saturated conditions. FR 64 requires periodic maintenance in the summer to maintain the gravel surface. This typically involves watering, grading, and adding crushed rock to the surface at least once per summer. In the winter, the road is plowed, sanded, and graveled to improve access to Ski Bluewood. These activities result in sedimentation that reaches the North Fork Touchet River. FR 64 is within the Riparian Habitat Conservation Area (RHCA) of the North Fork Touchet River, and in some places is within 10 feet of the river. In summer, when the roadbed is dry, dust becomes a problem and settles in the river. The dust also creates a safety hazard by reducing visibility for drivers.

The UNF proposes to: (1) Replace two large culverts along FR 64 to improve fish passage; (2) replace a fish barrier culvert on FR 6400650; (3) pave the Ski Bluewood parking lot and the ski area access road (FR 6400650); (4) upgrade and re-route the snowmobile trail which parallels FR 64; (4) replace the snowmobile underpass under FR 6400650; (5) reconstruct the Touchet Corral Trail including the construction of a bridge over Touchet Corral Creek on FR 6400700; (7) repair the Lower Tamarack Trail (used as service road on a ski run) which includes the installation of three new culverts, and the replacement of a fourth culvert, in a perennial, non-fish-bearing stream; and (8) install a toilet at the Middle Point Ridge Trailhead.

The goals of the project are: (1) To reduce sediment delivery from FR 64 and the North Fork Touchet Snowmobile Trail into the North Fork Touchet River; (2) to allow riparian vegetation to recover by controlling access to the North Fork Touchet RHCA; (3) to improve user safety at the snowmobile trail crossing of FR 6400650; and (4) to improve fish passage and access to habitat for all life stages.

The objective of this Opinion is to determine whether the Project is likely to jeopardize the continued existence of MCR steelhead.

The objective of the EFH consultation is to determine whether the Project may adversely affect designated EFH for relevant species, and to recommend conservation measures to avoid, minimize, or otherwise offset potential adverse effects to EFH resulting from the action.

1.2 Proposed Action

Proposed actions are defined in the Services' consultation regulations (50 CFR 402.02) as "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas." Additionally, U.S. Code (16 U.S.C. 1855(b)(2)) further defines a Federal action as "any action authorized, funded, or

undertaken or proposed to be authorized, funded, or undertaken by a Federal agency." Because the UNF proposes to carry out the Project that may affect listed resources, it must consult under ESA section 7(a)(2) and MSA section 305(b)(2).

The eight activities listed above in section 1.1 of this document are fully described in the BA and are summarized below. These activities are within the range of MCR steelhead.

Fish Passage Culvert Replacement

Prefabricated steel bridges will replace two fish barrier culverts on FR 64; one at mile post 4.52 and the other at mile post 4.71. The bridge spans will allow for the stream to recover its floodplain. These culvert replacements may occur one to three years after the paving project because funding needs to be secured. The bridges will be approximately 65 feet long and 30 feet wide. Approximately 400 and 600 cubic yards of fill will be removed from the crossings respectively. Pilings will be used to support the bridge.

Steel pilings will be set outside of the normal high water mark. The existing culvert will remain in place during the piling installation, fill removal, and bank contouring to isolate work from flowing water. No stream crossings will be required during culvert removal or bridge installation. The work area will be isolated for work within the streambed. Fish will be cleared from the area under the supervision of a fish biologist and pumps will be used to route water around the site for culvert removal and streambed shaping. Pumps for work area isolation will operate in a area separated by net fences to keep fish away from pump intakes. The pump intakes will also be screened.

Erosion control management and best management practices (BMPs) will be used to confine sediment transportation. The culverts will be replaced with bridges during the instream work window and the disturbed area will be revegetated with native plants suitable for the site.

A fish barrier culvert on FR 6400650 road will be replaced in conjunction with the paving project. A bottomless arch will replace the existing passage structures at this location. The bottomless arch will be widened to accommodate the bankfull width of the river, and to accommodate a 100-year flood event. Prefabricated concrete footings will be placed within the floodplain to anchor the new culvert. The footings will be placed a foot lower than the streambed to prevent the stream from scouring under the arch. The existing culvert will be left in place during fill removal, excavation, footing placement, and bank contouring to isolate the work area from flowing water. Fill from the both sides of the culvert will be removed to create two, 80-foot long trenches parallel to the culvert where the preformed footings will be placed. Sand bags, plastic sheeting, filter cloth, and possibly a smaller pipe will be used to keep water out of the trenches during assembly of the forms. Removal of the existing culvert will require diversion of the stream. Because the existing culvert is a fish passage barrier, fish will be cleared from the area downstream of the culvert and prevented from coming upstream with block nets just before culvert removal. This will prevent fish from being in the area during instream work. Fish will be cleared from the area under the supervision of a fish biologist and pumps will be used to route water around the site for culvert removal and streambed shaping. Pumps for

work area isolation will operate in a area separated by net fences to keep fish away from pump intakes. The pump intakes will also be screened. The stream will be allowed to re-enter the channel once the culvert removal and the streambed shaping is complete. The work area will be isolated for work within the streambed.

There is approximately 14 feet of fill above the culvert which will require excavation. The new bottomless arch will be placed over the stream and anchored. Fill material will be placed around the arch and compacted. Material excavated during culvert removal or from the road paving source will be used as fill.

Paving

This project involves paving approximately 7.5 miles of FR 64 from the UNF boundary to the junction of FR 6400650. Paving material will consist of a four-inch thick hot asphalt wearing surface on top of crushed rock. All paving material will be hauled to the project area from off-site sources. Fill from local stockpiles at the junction of FR 64 and FR 46 road junction and Chase Mountain will be required to provide a sufficient base for the paving material and to prevent frost heave on the completed roadway. The lower elevation portion of the road (from the end of County Road 9115 upstream for approximately two miles) will require 12 inches of crushed rock. The remainder of the road will require 18 inches of crushed rock to provide a base for the paving material. Approximately 5,000 cubic yards of crushed rock per mile will be required to provide a sufficient base for paving. A total of 40,000 cubic yards of rock will be needed for the entire project. The existing quarry sites at the junction of FR 64 and FR 46 and Chase Mountain will be expanded to meet the needs of the project. Silt fences, straw bales, and filter cloth will be used at selected locations to ensure that any silt and debris from the proposed paving activities does not enter the river.

Snowmobile Trail Re-route

The Project involves the reconstruction of the Touchet Corral Snow Park and relocation of the snowmobile trail that it accesses. FR 64 will be moved to the eastern outside edge of the existing snowpark; the current location of the toilet and forest information kiosk. The snowpark, parking area, toilet, and information kiosk will be relocated to inside the corner of the current road location. The snowpark will be widened 10 to 20 feet into the hillside on the west side of the road over its entire length. The snowpark at the 90 degree turn just south of the snowpark will be widened 20 feet into the existing hillside to straighten the road, improve sight distance, and provide space for a snowmobile ramp. Widening of the snowpark and area for the ramp will extend approximately 1,800 feet along the west side of FR 64 when completed. Approximately 120 trees on the hillside above FR 64 will be removed to accommodate the proposed expansion of the snowpark. These trees do not provide shade for the stream. The trees will be used to rehabilitate the existing trail, decked and sold, or used for firewood. Approximately three large trees will also be removed on the east side of the road. These trees are within the RHCA of the river and are providing shade.

At the north end of the existing snowpark, the road prism will be extended into the floodplain of the river just north of FR 6400700. This will require the removal of 6 to 8 large,

shade-providing trees and several smaller trees between the road and the existing snowmobile trail. The area where the road prism will be extended is a portion of the existing snowmobile trail. Extension of the road prism into this area will make the transition into and out of the corner at the south end of the snowpark more gradual, and therefore easier for vehicles to negotiate, and will eliminate the extreme curve just north of FR 6400700.

To decrease the distance that the road will encroach into the floodplain, the edge of the road will be reinforced with boulders that will function as a retaining wall. Sediment cloth will be placed between the boulders and the road fill to decrease the potential for sediment mobilization. The road will be sloped towards the inside of these corners, directing runoff to drainage ditches on the inside of the corners.

Two vault toilets at opposite ends on the snowpark will be completely removed. The removal of the existing vaults will cause some disturbance that will be either covered by asphalt or be revegetated. The northern vault will be mostly revegetated and the southern will be mostly paved over. All disturbed areas will be covered by pavement or revegetated.

A new toilet will be placed in the middle of the new snowpark, opposite FR 6400700. This new restroom will be a prefabricated, one-piece unit with a 1,000-gallon vault. A backhoe will be used to clear a 20-foot long by 25-foot wide area for the pad, and a 14-foot long by 10-foot wide and 5-foot deep hole for the vault will be constructed for the toilet. Gravel will be filled and compacted around the toilet site. This toilet will be 150 feet from the bankfull width of the North Fork Touchet River.

Widening of the Touchet Corral Snowpark will result in additional soil and vegetative disturbance beside the North Fork Touchet River. Widening the snowpark will also result in an 1,800-foot long cut bank on the west side of the snowpark that could be a source of sediment. Exposed soil will be seeded and mulched to decrease the chance of sediment mobilization. Sediment mobilized by extension of the snowpark will be negligible. Relocation of the snowpark to the opposite side of road will decrease or eliminate the use of several dispersed campsites beside the existing snowpark that are within the RHCA of the North Fork Touchet River. Eliminating use of these sites will result in decreased sediment inputs, decreased soil compaction and exposure, and decreased disturbance of riparian vegetation.

Widening the road prism at the south end of the snowpark will cause further encroachment of the road into the floodplain of the North Fork Touchet River and the removal of at least six large, shade-providing trees in the RHCA. Use of boulders and filter cloth at these locations will minimize the area that the road encroaches into the floodplain by creating a vertical slope at the toe of the road fill. Sediment mobilization associated with the placement of boulders will be negligible.

Sediment inputs from the existing snowmobile trail in the RHCA will be eliminated in the future due to the decommissioning and rehabilitation of the existing trail and the subsequent protection of the two springs intercepted by the trail. Disturbance within the RHCA of the North Fork

Touchet River will also decrease. The snowmobile trail ramp and reroute will introduce fine sediment into the river over one runoff year as the trail stabilizes and the surface is compacted. After sediment inputs from initial construction, the trail will be a continued source of small amounts of fine sediment over the life of the trail.

Enlarging the existing snowpark by pushing into the hillside 10 to 20 feet will result in the removal of up to 120 trees and understory vegetation along approximately 1,800 linear feet on the west side of the road. These trees are within the outer 100 feet of the 300-foot RHCA buffer for the North Fork Touchet River. Because the majority of these trees are less than 40 feet tall, and are at least 200 feet from the North Fork Touchet River, they are not providing shade to the stream. Because the riparian vegetation on the east side of the road (the river side) is generally dense, with multiple layers of vegetation providing shade to the stream, the removal of 120 trees and understory vegetation on the west side of the road will not have a measurable effect on stream temperature due to the relatively low level of vegetative removal and the density of riparian vegetation beside the river. The BA indicates that removal of 6 to 8 large trees on the east side of the road may slightly decrease shade in that area, but will not have a measurable effect on stream temperature because of the north aspect and existing dense understory vegetation near the North Fork Touchet River. These trees need to be removed for road safety. The BA also indicates that clearing vegetation during trail construction on the hillside above FR 64 will have no effect on stream temperature due to the distance from the stream channel. Closure and rehabilitation of the existing portion of the snowmobile trail within the RHCA of the river will allow vegetative recovery and will ultimately increase understory and overstory vegetation.

Snowmobile Underpass Removal

The existing snowmobile underpass at FR 6400650 will be removed and replaced with fill. The planned abandonment of the snowmobile trail within the riparian area along FR 64 makes this underpass unnecessary.

Reconstruction of the Touchet Corral Trail and Bridge on the 700 Road

The culvert at the FR 6400700 crossing will be replaced with a bridge 16 feet wide and 24 feet long. Approximately 400 cubic yards of fill material cover this culvert. Fill material will be removed and hauled to a road maintenance waste site near the Middle Point Ridge Trailhead, approximately 6 miles from FR 6400700. Fill material will be pulled back from the stream channel before removal of the culvert. The culvert will remain in place during fill removal and streambank shaping.

Before culvert removal, the work area will be isolated for work within the streambed. Fish will be cleared from the area under the supervision of a fish biologist, and pumps will be used to route water around the site for culvert removal and streambed shaping. Pumps for work area isolation will operate in an area separated by net fences to keep fish away from pump intakes. The pump intakes will also be screened. The culvert will then be removed with an excavator and the stream allowed to re-enter the channel.

The replacement bridge will be a prefabricated bridge and will not be constructed with treated wood. Concrete abutments will be placed 10 to15 feet back from the stream channel and wood stringers anchored to these structures. The new bridge will allow access to passenger vehicles and OHVs during the summer months, and snowmobiles and the trail groomer in the winter.

Boulders will be used to decrease the size of the trailhead and parking area and shift the location of the trailhead closer to the North Fork Touchet River. Boulders placed between the parking area and the Touchet Corral ATV Trail will discourage the use of shortcuts and off-trail use by ATVs. On the north side of the parking area, boulders will limit parking to a single vehicle. On the south side of the trailhead, boulders will define the new parking area for the trailhead and limit vehicle and ATV access to dispersed campsites on the east side of the river. All boulders will be at least 20 feet from streams.

To improve drainage at the parking area, the trailhead will be sloped to the center. A trench will be dug and lined with filter cloth, and the trench filled with course gravel to create a blind drain. The parking area and FR 6400700 will be graveled.

Tamarack Trail Culverts and Gully Repair

This project will include placing three culverts at the uppermost headwater springs and enlarging the catch basin where the spring is diverted down the logging road. The culverts are in high-gradient, small portions of headwaters and springs which do not support any fish. Corrugated steel pipes will be placed at these crossings to pass water beneath the road. These culverts will be approximately 30 feet long at each of the upper two spring crossings. The lowermost headwater spring crossing will be relocated and a 50-foot corrugated steel pipe placed at the road crossing. All three of these culverts will be sized to withstand 100-year flood events.

All work will be done with either a backhoe or an excavator. Approximately 40 cubic yards of material will be excavated at these three sites. This material will be used to backfill and construct approaches to the new crossings. Excess fill material will be spread over the road surface. Some vegetation at the culvert sites and at the enlarged catch basin may need to be pruned to facilitate project work.

A culvert passes the perennial, non-fish-bearing stream under the road near the intersection of the Tamarack and Skyline Ski Runs. This culvert is patched together using a variety of PVC pipes, and will be replaced as part of this project. The existing culvert will be excavated, removed, and replaced with culverts sized to accommodate flow events for this drainage. Because fish passage is not needed, and a 58-inch by 36-inch corrugated arched pipe has the same flow capacity as a 48-inch corrugated round pipe, so either may be used in this location. This culvert will be approximately 75 feet long and situated to replace the existing outfall pipe at this location. Approximately 50 cubic yards of material will be excavated at this site. This material will be used to backfill and create an approach to the new culvert. An area beside this culvert will be re-shaped to facilitate site maintenance and grooming of the site during the ski season. An additional 25 feet uphill and 15 feet downhill is proposed to be covered with fill to minimize the amount of snow required to fill the channel during winter operations. Fill material

will come from material excavated at the culvert site or from material stockpiled at the Ski Bluewood parking area. The reshaped area will not exceed ¼ acre. A wider, groomed trail at this location will make the intersection of the Tamarack and Skyline trails safer for users.

The gully that has formed in the existing roadbed will be repaired by blading. Soil removed during blading will be used to fill the gully. If additional material is necessary to fully repair the gully, it will be brought in from an existing stockpile.

Middle Point Ridge Toilet Installation

This project will place a vault toilet at the Middle Point Ridge Trailhead site. The new vault toilet will be placed at the northwest corner of the existing trailhead site, approximately 50 feet from the North Fork Touchet River, and beside the existing pullout for the trailhead. Vegetation will be cleared from an area 25 feet by 20 feet. The vault toilet is on the western edge of the parking area (away from the river) and next to the FR 64.

Approximately 2,000 cubic feet of fill material will be needed to raise the level of the pad to the same level as the trailhead parking area. Fill material will come from an existing road maintenance waste site approximately 0.5 miles from the trailhead.

Because of concerns with bedrock depth, the toilet at the site will be replaced with one of two methods. The preferred option will be to excavate a hole the dimensions of the toilet 1 foot deep, place the toilet in the hole, and then fill in and compact the material around the toilet to a depth of 4 feet. If the bedrock depth is too shallow, the alternate is to bring in fill material and compact the fill to a depth of 4 feet and excavate a hole for the vault and place the toilet at that location. In either case, a backhoe or excavator will be used to place the toilet in the hole and fill and compact the soil surrounding the toilet. The pad for the toilet will measure 25 feet by 20 feet, including the toe of the fill. Excess fill material will be hauled to the road maintenance waste site. A hardened path will be constructed from the trailhead parking area to the toilet, and graveled to decrease the amount of soil exposure and make the path accessible to disabled users.

Water Drafting

Water for dust abatement and compaction will come from the North Fork Touchet River. Two drafting sites will be used within the project area. The first is approximately 200 to 300 feet upstream from the Middle Point Ridge Trailhead. The second is at the FR 6400700 crossing. Both sites are accessible from hardened, well-maintained roads, and will require no manipulation of riparian or instream habitat to facilitate their use.

Conservation Measures for the Project

The UNF has included the following conservation measures in the design of the Project:

1. NOAA Fisheries-approved screens will be required during all water removal operations to protect juvenile fish.
2. All water withdrawal from the North Fork Touchet River will comply with water drafting guidelines contained in the South Fork Walla Walla Biological Opinion (refer to:

1999/01851). The guidelines in this document will apply when flows at drafting sites are less than 5 cubic feet per second (cfs).

3. When flows are less than 5 cfs, water withdrawals will be limited to 18,000 gallons per day, per site, and rates of withdrawal limited to 1/10 of the observed stream flow.
4. Equipment will be stored overnight at rock pits or behind locked gates at Ski Bluewood.
5. Fuel will be carried to the work site daily by support vehicles.
6. Erosion control measures and BMPs will be used to decrease the risk of sediment transport from the project area.
7. Culverts will be replaced one at a time starting with the lower culvert on FR 64. The stream will be allowed to clear before removing the next culvert.
8. All instream work will be completed during the in-water work window of July 15 to August 20.
9. During culvert removal, flowing water will not be in contact with the active construction site. Methods such as silt fences, straw bales, and filter cloth will be used to reduce sediment. Construction equipment contact with flowing water will be minimized or avoided. Water diversions will be accomplished by means of pumping, lined ditches, piping, or moving the water from side to side within the normal channel.
10. Turbid water will be pumped from excavations into settling tanks before returning to the channel to reduce sediment introduction into the North Fork Touchet River.
11. Sediment barriers will be used as needed to prevent sediment from reaching surface waters during abutment excavation activities and from stockpiles of soil generated during fill excavation and replacement of the snowmobile bridge over the North Fork Touchet River.
12. On-site turbidity monitoring will determine whether turbidity is within the state limit of 5 nephalometric turbidity units (NTUs) increase 100 feet below the project. Instream work will cease if the limit is reached.
13. New bridges and culverts will be designed so that abutments will be outside the bankfull width and will pass 100-year flood flow.
14. Channels will be recontoured to dimensions reflecting the natural channel.
15. Disturbed areas inside RHCAs and channel areas disturbed by recontouring, abutment construction or placement, or other activity will be seeded and mulched with native seed and straw as soon as work has been completed.
16. Noxious weed prevention measures will be performed, and sites will be monitored to decrease the chance of noxious weed establishment

The contract inspector and/or contracting officer's representative will monitor the sites during construction activities to ensure that conservation measures are applied and functioning as intended. The district will visually monitor of the site following the first rains after the construction activities are completed.

BMPs for machine operation will be monitored to reduce unnecessary exposure, loss of excavation materials beyond excavation limits, and displaced soil in line with discharge flow.

2. ENDANGERED SPECIES ACT

2.1 Biological Opinion

2.1.1 Biological Information

The MCR steelhead evolutionarily significant unit (ESU) was listed as threatened under the ESA by NOAA Fisheries on March 25, 1999 (64 FR 14517). Protective regulations for MCR steelhead were issued under section 4(d) of the ESA on July 10, 2000 (65 FR 42422). Biological information concerning the MCR steelhead is found in Busby *et al.* (1996). The major drainages in the MCR steelhead ESU are the Deschutes, John Day, Klickitat, Umatilla, Walla Walla, and Yakima river systems. NOAA Fisheries (2003) has indicated that the five-year average (geometric mean) abundance of natural MCR steelhead was up from previous years' basin estimates in the ESU. The Klickitat, Yakima, Touchet, and Umatilla systems are all well below their interim abundance targets (Table 1). The John Day and Deschutes are at or above their interim targets for abundance; however, there is significant concern regarding the straying of fish into the Deschutes system from other ESUs (Table 1). The productivity estimate (λ) of the MCR ESU is approximately 0.98, indicating that the productivity of MCR steelhead is slightly below its target of 1.0. NOAA Fisheries biological review team (BRT) has determined that the MCR ESU is likely to become endangered because of stock abundance and long-term productivity being depressed within the ESU.

Table 1. Interim Abundance Targets for the MCR Steelhead ESU (adapted from NOAA Fisheries 2003).

ESU/Spawning Aggregations*	Interim Abundance Targets	Interim Productivity Objective
Walla-Walla	**2,600**	Middle Columbia ESU populations are well below recovery levels. The geometric mean Natural Replacement Rate (NRR) will therefore need to be greater than 1.0
Umatilla	2,300	
Deschutes (Below Pelton Dam Complex)	6,300	
John Day		
North Fork	2,700	
Middle Fork	1,300	
South Fork	600	
Lower John Day	3,200	
Upper John Day	2,000	

* Population in bold is addressed in this Opinion

Oncorhynchus mykiss may be resident, and spend their entire life in freshwater, or anadromous, and migrate to the ocean before returning to freshwater to spawn. Offspring of resident forms are known to have become anadromous, and offspring of anadromous forms are known to have residualized and become residents. The anadromous form, known as steelhead, may spend up to seven years in fresh water before smoltification, and can spend up to three years in the ocean before making their first spawning run. Repeat spawning is known to occur. The number of possible combinations of these factors give *O. mykiss* one of the largest suites of life history patterns of any of the salmonids (Busby *et al.* 1996). Only the anadromous form is listed under the ESA. It is not possible to distinguish between juvenile steelhead and juvenile resident interior redband trout. The life history choice of residence in the freshwater stream or migration to the ocean after one or two years in fresh water is thought to be a behavior choice that could overlap populations and may not be genetically based.

Steelhead of the Touchet River watershed are typical of A-run inland steelhead. These are stream-maturing fish that spend an extended period of time in freshwater before spawning. Adult A-run fish enter the Columbia River from June to August and pass Bonneville Dam on their migration during the first of two peaks in the Columbia River steelhead run. The break points between these peaks is somewhat arbitrarily set at August 25, with A-run fish migrating past Bonneville before this date and B-run fish destined for the Clearwater and Salmon Rivers migrating after the 25th (Busby *et al.* 1996). After passing Bonneville Dam, steelhead destined for the Touchet River continue their migration up the Columbia through the remainder of the summer and fall until reaching the mouth of the Walla Walla River. Steelhead start to enter the Walla Walla River with rising stream flows that typically occur in late November and December.

The BA indicates that in the North Fork Touchet River, spawning typically begins about mid-March. Fry emerge from the gravel between May and mid-July. Steelhead young rear for two years in the North Fork Touchet before beginning outmigration with spring high flows. They will spend one to two years in the ocean before returning to spawn.

Escapement records for the Oregon portion of the upper mainstem Walla Walla River have been collected at the Nursery Bridge Dam Ladder. The number of adult steelhead returning to the Walla Walla River subbasin declined throughout the 1990s, but significantly improved in the 1999-2000 run year, when all Columbia River returns were up (Saul *et al.*, 2001). For the South Fork Walla Walla (SFWW) River, estimated adult escapement for MCR steelhead from 1992 to 1997 average less than 500 adults. In 1992, there were approximately 760 adults, and in 1997, there were approximately 400 adult MCR steelhead. However, according to ODFW, there has been a continual increase of returning wild stocks in the SFWW River over the last several years as compared to previous years (Bureau of Land Management, 2001).

The only naturally-occurring populations of anadromous fish present in the Walla Walla River subbasin are MCR steelhead. MCR steelhead are still found throughout much of their historic range in the Walla Walla River subbasin. There are no accurate historic estimates of MCR steelhead returns to the Walla Walla River subbasin, but the run size is believed to have been 4,000 to 5,000 fish. Factors linked to the declining steelhead population in the Walla Walla

River subbasin include changes in flow regimes, riparian conditions, water temperatures, substrate, and passage impediments (Washington State Conservation Commission, 2001).

The BA indicates that spawning and rearing habitat in the Touchet River drainage includes the North, South, Wolf, and Robinson Forks of the Touchet, along with Coppei and Patit Creeks and the mainstem of the Touchet upstream from the mouth of Coppei Creek. Although the USDA Forest Service manages the headwater areas of all of these streams except Coppei Creek, the only known spawning habitat on Forest Service land is in the upper four miles of the North Fork of the Touchet River.

Within the action area, the North Fork Touchet River serves as a spawning and rearing area as well as migration corridor for ESA-listed MCR steelhead. Important features of the adult spawning, juvenile rearing, and adult and juvenile migratory habitat for the species are include substrate, water quality, water quantity, water temperature, water velocity, cover/shelter, food (juvenile only), riparian vegetation, space, and safe passage conditions (Bjornn and Reiser 1991; NOAA Fisheries 1996b; Spence *et al.* 1996). The proposed and ongoing actions addressed in this Opinion may affect all of the above factors.

2.1.2 Evaluating Proposed Actions

The standards for determining jeopardy are set forth in section 7(a)(2) of the ESA as defined by 50 CFR Part 402 (the consultation regulations). In conducting analyses of habitat-altering actions under section 7 of the ESA, NOAA Fisheries uses the following steps: (1) Consider the status and biological requirements of the species; (2) evaluate the relevance of the environmental baseline in the action area to the species' current status; (3) determine the effects of the proposed or continuing action on the species; (4) consider cumulative effects; and (5) determine whether the proposed action, in light of the above factors, is likely to appreciably reduce the likelihood of species survival in the wild or adversely modify its critical habitat. In completing this step of the analysis, NOAA Fisheries determines whether the action under consultation, together with all cumulative effects when added to the environmental baseline, is likely to jeopardize the continued existence of the ESA-listed species or result in destruction, adversely modify their critical habitat, or both.

The "*Conservation of Columbia Basin Fish: Final Basinwide Salmon Recovery Strategy*" (Federal Caucus 2000) (Basinwide Recovery Strategy) provides the best available information for judging the significance of an individual action relative to the species-level biological requirements. Among other things, the Basinwide Recovery Strategy calls for restoration of degraded habitats on a priority basis to produce significant measurable benefits for listed anadromous and resident fish. Immediate and long-term priorities for restoration measures relevant to this consultation include the following general habitat improvements for tributary reaches:

- Restoring tributary flows.
- Addressing passage obstructions.

- Protecting the currently-productive habitat.
- Increasing the amount of habitat.
- Improving water quality.

2.1.3 Biological Requirements

The first step NOAA Fisheries uses when applying the ESA section 7(a)(2) to listed steelhead is to define the species' biological requirements that are most relevant to each consultation. NOAA Fisheries also considers the current status of the listed species, taking into account population size, trends, distribution and genetic diversity. To assess the current status of the listed species, NOAA Fisheries starts with the determinations made in its decision to list MCR steelhead for ESA protection and also considers relevant new data.

For this consultation, the biological requirements are improved habitat characteristics that support successful adult and juvenile migration, spawning and rearing. Restoring functional habitats depends largely on allowing natural processes to increase their ecological function, while at the same time removing adverse impacts of current practices. In conducting analyses of habitat-altering actions and essential habitat elements, NOAA Fisheries defines the biological requirements in terms of a concept called Properly Functioning Condition (PFC) and uses a "habitat approach" in its analysis (NOAA Fisheries 1999). The current status of the MCR steelhead has improved somewhat since the species was listed. However, numerous habitat-related problems throughout the basin remain, with habitat alteration from past agricultural activities and high summer water temperatures being key limiting factors.

2.1.4 Environmental Baseline

The environmental baseline is an analysis of the effects of past and ongoing human-caused and natural factors leading to the current status of the species or its habitat and ecosystem within the action area. The "action area" is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50 CFR 402.02). The action area for this consultation is the construction areas in the North Fork Touchet River watershed in the Walla Walla subbasin. The action area includes Bluewood Creek from its origin and extends downstream to its confluence with the North Fork Touchet River, and also extends downstream on the North Fork Touchet River along FR 6400. The action area includes all areas within the project footprint and extends downstream to areas that may be measurably affected by the proposed action (approximately 1/4 mile below the project footprint).

The North Fork of the Touchet River originates about four miles north of Table Rock at an elevation of 5,000 feet. The stream descends eastward about a mile to an elevation of 4,200 feet, where a small stream enters from the south. Lands draining to this tributary have been developed as a commercial ski area.

From the ski area, Bluewood Creek flows along FR 6400650 to the North Fork Touchet River. The North Fork Touchet River then flows northeast approximately four miles through Rosgen

B-type channels (Rosgen 1996) before reaching the UNF boundary near the mouth of Spangler Creek at an elevation of 3,200 feet. FR 64 parallels the stream along this reach, providing general access to the National Forest and winter access to the ski area. The road was mostly constructed outside the floodplain, and the stream remains well forested and shaded along this reach. The entire road is within the current PACFISH RHCA designation.

After leaving the UNF, the North Fork of the Touchet River flows north for about eight miles before it is joined by the Wolf Fork. Throughout this reach the valley floor widens, forested lands give way to grasslands, and human development increases. Small farms make up most of this development.

From the mouth of the Wolf Fork, the North Fork of the Touchet River flows another three miles before joining with the South Fork to form the mainstem of the Touchet River. From here the river flows another 57 miles through farmland before entering the Walla Walla River. A considerable amount of the stream has been channelized by the construction of levees, especially as the river passes through the towns of Dayton, Waitsburg, and Prescott, WA.

Environmental baseline conditions within the action area were evaluated for the subject actions at the subbasin and watershed scale. The results of this evaluation, based on the "matrix of pathways and indicators" (MPI) described in *Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale* (NOAA Fisheries 1996), follow. This method assesses the current condition of instream, riparian, and watershed factors that collectively provide properly functioning aquatic habitat essential for the survival and recovery of the species. Information used to establish environmental baseline conditions in this Opinion was taken from the BA, as well as from other sources provided by the UNF, and is summarized in Table 2.

In the North Fork Touchet River watershed, four habitat indicators in the MPI were rated as "properly functioning" and include: Chemical contaminants/nutrients, large woody debris, drainage network increase, and disturbance history. Twelve indicators were rated as "functioning at risk" and include: Temperature. sediment, physical barriers, substrate embeddedness, off-channel habitat, refugia, wetted width/maximum depth ratio, floodplain connectivity, change in peak/base flows, road density and location, riparian habitat conservation areas, and disturbance regime. One indicator, pool frequency and quality, was rated as "not properly functioning." Streambank condition was not evaluated. Some habitat indicators that were rated as "properly functioning" for the subbasin as a whole, such as chemical contaminant/nutrients may be functioning at a lesser condition in localized areas.

The biological requirements of the listed species are not currently being met under the environmental baseline. Any further long-term degradation of the baseline, or significant delay in improvement of these conditions, will decrease the likelihood of survival and recovery of the listed species.

Pacific salmon and steelhead populations are substantially affected by variation in the freshwater and marine environments. Ocean conditions are a key factor in the productivity of Pacific salmon populations. Stochastic events in freshwater (flooding, drought, snowpack conditions, volcanic eruptions, etc.) can play an important role in a species' survival and recovery, but those effects tend to be localized compared to the effects associated with the ocean. The survival and recovery of these species depends on their ability to persist through periods of low natural survival due to ocean conditions, climatic conditions, and other conditions outside the action area. Freshwater survival is particularly important during these periods because enough smolts must be produced so that a sufficient number of adults can survive to complete their oceanic migration, return to spawn, and perpetuate the species. Therefore it is important to maintain or restore essential freshwater habitat features to sustain the ESU through these periods. Additional details about the importance of freshwater survival to Pacific salmon populations can be found in Federal Caucus (2000), NOAA Fisheries (2000), and Oregon Progress Board (2000).

2.1.5 Analysis of Effects

Effects of the action are defined as: "The direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with the action, that will be added to the environmental baseline" (50 CFR 402.02). Direct effects occur at the Project site and may extend upstream or downstream based on the potential for affecting the species' habitat. Indirect effects are defined in 50 CFR 402.02 as "those that are caused by the proposed action and are later in time, but still are reasonably certain to occur." They include the effects on listed species or habitat of future activities that are induced by the proposed action and that occur after the action is completed. "Interrelated actions are those that are part of a larger action and depend on the larger action for their justification" (50 CFR 402.02). "Interdependent actions are those that have no independent utility apart from the action under consideration" (50 CFR 402.02).

In the jeopardy analysis, NOAA Fisheries evaluates the effects of proposed actions on listed species and seeks to answer the question of whether the species can be expected to survive with an adequate potential for recovery.

Table 2. Summary of Subbasin and Watershed Conditions in the Action Area

MPI Pathways	MPI Indicators	Properly Functioning	Functioning At Risk	Not Properly Functioning
Water Quality	Temperature		X	
	Sediment		X	
	Chem/Cont.	X		
Access	Physical barriers		X	
Habitat Elements	Substrate Embeddedness		X	
	Large Woody Debris	X		
	Pool Freq./Quality			X
	Off Channel Habitat		X	
	Refugia		X	
Channel Conditions & Dynamics	Width/depth ratios		X	
	Streambank Condition		ND	
	Floodplain connectivity		X	
Flow/ Hydrology	Change in Peak Base Flow		X	
	Drainage Network Increase	X		
Watershed Condition	Road Density and Location		X	
	Disturbance History	X		
	RHCAs		X	
	Disturbance Regime		X	

ND=data unavailable

The UNF has determined that the Project is LAA MCR steelhead. The proposed activities will require instream work (culverts), over stream work (bridge), and near stream work (trails and

paving). These activities have the potential to produce sediment plumes or introduce chemicals to the North Fork Touchet River sufficient to cause harm or harassment of MCR steelhead. Additionally, the newly-paved surfaces (road and parking lot) may collect drippings from vehicles such as fuels, oils, lubricants, coolants, and hydraulic fluids which could be transported to the North Fork Touchet River via runoff.

Potential impacts to listed salmonids from these proposed activities are both direct and indirect. There is some chance that fish will be crushed or injured during removal and replacement of the culvert structures, although the overall risk is low because the UNF has included measures to minimize the potential for these effects. Fish are expected to flee the immediate area before culvert removal because of noise and vibration associated with the construction activities. Potential direct effects include mortality from exposure to suspended sediments (turbidity) and contaminants that may enter the North Fork Touchet River as a result of construction activities and runoff. Potential indirect effects include behavioral changes resulting from elevated turbidity or chemical levels during in-water construction.

Suspended sediment and turbidity influences on fish reported in the literature range from beneficial to detrimental. Elevated total suspended solids (TSS) conditions have been reported to enhance cover conditions, reduce piscivorus fish/bird predation rates, and improve survival. Elevated TSS conditions have also been reported to cause physiological stress, reduce growth, and adversely affect survival. Of key importance in considering the detrimental effects of TSS on fish are the frequency and the duration of the exposure, not just the TSS concentration.

Behavioral avoidance of turbid waters may be one of the most important effects of suspended sediments (DeVore *et al.* 1980, Birtwell *et al.* 1984, Scannell 1988). Salmonids have been observed to move laterally and downstream to avoid turbid plumes (McLeay *et al.* 1984, 1987, Sigler *et al.* 1984, Lloyd 1987, Scannell 1988, Servizi and Martens 1991). Juvenile salmonids tend to avoid streams that are chronically turbid, such as glacial streams or those disturbed by human activities, unless the fish need to traverse these streams along migration routes (Lloyd *et al.* 1987). In addition, a potentially positive reported effect is providing refuge and cover from predation (Gregory and Levings 1998).

Fish that remain in turbid, or elevated TSS, waters experience a reduction in predation from piscivorus fish and birds (Gregory and Levings 1998). In systems with intense predation pressure, this provides a beneficial trade-off (*e.g.*, enhanced survival) with the cost of potential physical effects (*e.g.*, reduced growth). Turbidity levels of about 23 NTUs have been found to minimize bird and fish predation risks (Gregory 1993). Exposure duration is a critical determinant of the occurrence and importance of physical or behavioral effects (Newcombe and MacDonald 1991). Salmonids have evolved in systems that periodically experience short-term pulses (days to weeks) of high suspended sediment loads, often associated with flood events, and are adapted to such high pulse exposures. Adult and larger juvenile salmonids may be little affected by the high concentrations of suspended sediments that occur during storm and snowmelt runoff episodes (Bjornn and Reiser 1991). However, research shows that chronic

exposure can cause physiological stress responses that can increase maintenance energy and reduce feeding and growth (Redding *et al.* 1987, Lloyd 1987, Servizi and Martens 1991).

Moderate turbidity may adversely affect primary and secondary productivity, and at high levels has the potential to injure and kill adult and juvenile fish and may also interfere with feeding (Spence *et al.* 1996). Newly-emerged salmonid fry may be vulnerable to even moderate amounts of turbidity (Bjornn and Reiser 1991). Other behavioral effects on fish, such as gill flaring and feeding changes, have been observed in response to pulses of suspended sediment (Berg and Northcote 1985). Fine, redeposited sediments may also adversely affect primary and secondary productivity (Spence *et al.* 1996), and may reduce incubation success (Bell 1991) and cover for juvenile salmonids (Bjornn and Reiser 1991).

Increased sedimentation may also lead to increased embeddness of spawning substrates downstream from the project. Instream work scheduled for these projects will take place during the in-water window for the area (July 15 to August 20), when adult MCR steelhead or redds are not likely to be present. Due to the measures that the UNF is proposing to reduce sediment transport, sedimentation effects are expected to be minimal. Disturbance of riparian vegetation could result from operation of heavy machinery near the stream and could lead to decreased shade, increased water temperatures, and decreased streambank stability until riparian vegetation is re-established. Additionally, removal of hazard trees in riparian areas could result in a minor reduction in stream shading.

There is also the potential for fuel or other contaminant spills associated with use of heavy equipment in or near the stream. As with all construction activities, accidental release of fuel, oil, and other contaminants may occur. Operation of the backhoes, excavators, and other equipment requires the use of fuel, lubricants, hydraulic fluid, and coolants, which, if spilled into the channel of a waterbody or into the adjacent riparian zone, can injure or kill aquatic organisms. Petroleum-based contaminants (such as fuel, oil, and some hydraulic fluids) contain polycyclic aromatic hydrocarbons (PAHs), which can be acutely toxic to salmonids at high levels of exposure and can also cause chronic lethal and acute and chronic sublethal effects to aquatic organisms (Neff 1985). Because the potential for chemical contamination from construction vehicles should be localized and brief, the probability of direct mortality is negligible. The contractor will also be required to develop, implement, and monitor a site-specific pollution control plan in an effort to further minimize risk to the aquatic environment.

Water drafting for road construction activities from streams during the low flow periods of summer is reasonably certain to result in some adverse effects to rearing juvenile MCR steelhead. Short-term reductions in flow may cause fish to move to deeper water or may strand fish in residual pools. Once these fish move from cover, they become susceptible to predation from piscivorus birds, fish, and mammals. In streams where multiple draftings occur in a day, temperature increases may result from reduced flows. Screens on pumps used for water drafting will prevent juvenile fish from being entrained during water withdrawal. These adverse effects are expected to be temporary and of short duration. The construction activities will occur during the spring and summer of the next two or three years.

Paving the parking lot may influence hydrologic processes by increasing the magnitude and frequency of peak discharge and reducing summer base flows (Klein 1979, Booth 1991). These effects are primarily caused by increasing the area of impervious surfaces and drainage ditches (Luchetti and Fuerstenburg 1993). Because stormwater is delivered to the channel rather than infiltrating the soil under impervious surfaces, the potential for higher peak flows and reduced base flows increases (Dunne *et al.* 1975). Research indicates that stream quality impairment is correlated to the percentage of water imperviousness. For this Project, it is not likely the flow regime would change dramatically because the existing road and parking lot are likely already limiting infiltration, and the paving should not increase imperviousness dramatically.

The paving of the parking lot at the Ski Bluewood recreation area, the Touchet Corral parking area, and FR 64 may increase the potential for the introduction of fuels, lubricants, coolant, and hydraulic fluids to enter the North Fork Touchet River. Vehicles parked in the parking areas may leak fluids that will remain on the impervious surface until rains or runoff mobilize them. Once mobilized, these fluids may enter the North Fork Touchet River by overland or subsurface flow.

Ethylene glycol (the primary ingredient in antifreeze) has shown sublethal effects in rainbow trout at concentrations of 20,400 mg/L (Beak Consultants Ltd., 1995 as cited in Staples 2001). It is unlikely that concentrations would approach this level unless a large spill occurred.

Dokholyan *et al.* (1980) tested the survival of chum salmon (*O. keta*) exposed to dissolved fractions of petroleum. Concentrations from 0.05 to 3 mg/l did not produce effects different from the controls. Concentrations of 6.0 and 9.0 mg/l produced 10-15% and 100 % mortality, respectively. When tested over longer periods (40 days) the lower concentrations did produce effects that differed from the controls. Survival decreased by 10% in concentrations of 0.5 mg/l and by 50-60% in concentrations of 3.0 mg/l. Sturgeon survived higher concentrations for longer times than did the chum salmon. This study evaluated survival and would not detect sublethal effects such as behavioral changes or many physiological effects such as tissue damage, reproductive success, or success at feeding. Thomas and Rice (1987) demonstrated reduced swimming performance in juvenile coho salmon exposed to the water-soluble fraction (WSF) of Cook Inlet crude oil. Fish were exposed for 48 hours to 25, 50 or 75% of the 96-hour LC50 (3.3ppm total aromatics). Visual inspection of graphed results suggests a dose-related effect, although differences in swimming performance of fish exposed to 25 or 50% of the 96-hour LC50 were small and statistically insignificant when compared with controls. Exposure to WSF also produced elevated levels of plasma cortisol.

Weber *et al.* (1981) demonstrated that migrating adult salmon (a mixture of species, but mostly coho) selected a fish ladder without added hydrocarbons when presented with a choice. They used a mixture of monocyclic aromatic hydrocarbons approximating the composition of the water-soluble fraction of the monocyclic hydrocarbons in Prudhoe Bay crude oil. Fifty percent of the fish expected to ascend a ladder avoided it (AL50) at a hydrocarbon concentration of 3.2 mg/l. The concentrations that may reach Bluewood Creek or the North Fork Touchet River are unknown.

Brake fluid is a mixture of glycols and glycol ethers and thus chemically related to the ingredients of antifreeze. According to several manufacturers' material safety data sheets (Shell, Kwiktrip Inc., Warco, Castrol), its toxicity (LD50) to mammals appears to be from one to four g/kg (about a half-cup for an average sized adult). This is about the same as the toxicity of ethylene glycol (antifreeze). It is unlikely that large amounts of brake or transmission fluid will be spilled on the parking area and reach Bluewood Creek and the North Fork Touchet River in high concentrations.

As a result of the project, fish passage will improve at the site of culvert replacements, chronic input of sediment is expected to decrease from the road paving project, and recreational improvements (trail relocation and discouraging dispersed camping) will reduce some anthropogenic impacts on the riparian area along the North Fork Touchet River. All habitat indicators are expected to be maintained or improved in the long term.

2.1.6 Cumulative Effects

"Cumulative effects" are defined in 50 CFR 402.02 as those effects of "future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation."

Information provided by the UNF for the North Fork Touchet River identify agriculture, recreation and tourism, and water use and control as non-federal actions that are reasonably certain to occur within the action area.

Recreational fishing for adult MCR steelhead occurs in the mainstem of the Touchet River. WDFW regulations limit the fishing season and require that all wild MCR steelhead be released unharmed. A trout fishery exists throughout the subbasin, and there is no way for anglers to distinguish MCR steelhead from resident rainbow trout they are legally fishing for. Some juvenile MCR steelhead may be retained, and although wild adult MCR steelhead are to be released unharmed, hooking mortality and injury occurs to some fish that are caught by anglers.

Significant improvement in MCR steelhead reproductive success outside of federally-administered land is unlikely without changes in agricultural and other practices occurring within these non-federal riparian areas in the Walla Walla River subbasin. Until improvements in non-federal land management practices are actually implemented, NOAA Fisheries assumes that future private and state actions will continue at intensities similar to recent years.

2.1.7 Conclusion

NOAA Fisheries has determined that when the effects of the subject action addressed in this Opinion are added to the environmental baseline and cumulative effects occurring in the action area, they are not likely to jeopardize the continued existence of MCR steelhead.

NOAA Fisheries believes that the proposed action will cause some minor, short-term increases in stream turbidity and sedimentation rates in the action area. It is also possible that some mortality of juvenile MCR steelhead may result from the instream work. Water drafting is likely to result in some harassment of juvenile MCR steelhead. Vegetation disturbance or removal is expected to result in a temporary decrease in shade, as well as some behavior modification in the form of avoidance of areas without sufficient cover. These effects will diminish over time as newly-planted riparian vegetation is established. MCR steelhead are expected to avoid habitats negatively affected by construction activities in the short term until conditions improve. The proposed action is expected to provide long-term benefits to MCR steelhead by improving habitat access and a reducing chronic sedimentation.

NOAA Fisheries' conclusions are based on the following considerations: (1) All instream work will occur during the in-water work window for this area (July 15 to August 20), and instream work will be limited to that described in the BA; (2) all disturbed soils will be replanted with native vegetation; and (3) a small net increase in fish habitat access will result from the proposed action. Thus, the proposed action is not expected to impair properly functioning habitats, appreciably reduce the functioning of already impaired habitats, or retard the long-term progress of impaired habitats toward proper functioning condition essential to the long-term survival and recovery at the population or ESU scale.

2.1.8 Reinitiation of Consultation

As provided in 50 CFR 402.16, reinitiation of formal consultation is required if: (1) The amount or extent of taking specified in the Incidental Take Statement is exceeded, or is expected to be exceeded; (2) new information reveals effects of the action may affect listed species in a way not previously considered; (3) the action is modified in a way that causes an effect on listed species that was not previously considered; or (4) a new species is listed or critical habitat is designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease, pending conclusion of the reinitiated consultation. This Opinion only covers those included activities that are completed within five years of the signature date. To reinitiate consultation, the UNF must contact the NOAA Fisheries Habitat Conservation Division, Oregon Habitat Branch and refer to NOAA Fisheries No.: 2003/00088.

2.2 Incidental Take Statement

The ESA at section 9 [16 USC 1538] prohibits take of endangered species. The prohibition of take is extended to threatened anadromous salmonids by section 4(d) rule [50 CFR 223.203]. Take is defined by the statute as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" [16 USC 1532(19)]. Harm is defined by regulation as "an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavior patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering" [50 CFR 222.102]. Harass is defined as "an intentional or

negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering" [50 CFR 17.3]. Incidental take is defined as "takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant" [50 CFR 402.02]. The ESA at section 7(o)(2) removes the prohibition from any incidental taking that is in compliance with the terms and conditions specified in a section 7(b)(4) incidental take statement [16 USC 1536].

An incidental take statement specifies the impact of any incidental taking of endangered or threatened species. It also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply to implement the reasonable and prudent measures.

2.2.1 Amount or Extent of the Take

The proposed action is reasonably certain to result in incidental take of juvenile MCR steelhead. NOAA Fisheries is reasonably certain the incidental take described here will occur because: (1) The listed species are known to occur in the action area; and (2) the proposed action is likely to cause impacts significant enough to cause death or injury, or impair feeding, breeding, migrating, or sheltering for the listed species.

Some level of incidental take is expected to result from direct injury or death of juvenile MCR steelhead during instream work. There is a small chance that fish may be killed or injured while the culvert structures are being removed or replaced. Work area isolation is expected to briefly disrupt normal distribution and migration in the project area. The temporary increase in sediment and turbidity is expected to cause fish to avoid disturbed areas of the stream, both within and downstream from the Project area. Effects from turbidity are expected to be of short duration, because turbidity levels will quickly return to preconstruction levels once instream work is completed. The potential for incidental take also exists in the short term if toxicants are introduced into the water from construction equipment in the riparian area and in the long term via runoff from the paved surfaces. Take in the form of behavior modification (avoidance) is expected from riparian disturbance, vegetation removal, and decreased shade. This take is expected to decrease as newly-planted riparian vegetation is established. Some take in the form of harassment is likely to result from water drafting, especially if stream flows are low during the construction period.

Because of the inherent biological characteristics of aquatic species such as MCR steelhead, the likelihood of discovering take attributable to this action is very limited. Take associated with the effects of actions such as these is largely unquantifiable in the short term, and may not be measurable as long-term effects on the species' habitat or population levels. Therefore, although NOAA Fisheries expects the habitat-related effects of these actions to cause some low-level incidental take, the best scientific and commercial data available are not sufficient to enable NOAA Fisheries to estimate a specific amount of incidental take because of those habitat-related effects. In instances such as these, NOAA Fisheries designates the expected level of take as

"unquantifiable." The extent of this incidental take exemption is limited to harm caused by construction- related damage to riparian and aquatic habitat features within the footprint of individual project elements, and extending downstream 1/4 mile. Further, NOAA Fisheries anticipates that up to 200 juvenile MCR steelhead may be captured and released as part of the in-water work associated with the construction of the culverts and bridge. Up to 10 of those juveniles may die because of handling during the capture and release process, or due to delayed mortality caused handling.

2.2.2 Effect of Take

In this Opinion, NOAA Fisheries determines that this level of anticipated take is not likely to result in jeopardy to MCR steelhead.

2.2.3 Reasonable and Prudent Measures

Reasonable and prudent measures (RPMs) are nondiscretionary measures to minimize take, and may or may not already be part of the description of the proposed action. They must be implemented as binding conditions for the exemption in section 7(o)(2) to apply. The UNF has a continuing duty to regulate the activities covered in this incidental take statement. If the UNF fails to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or contracting, or fails to retain the oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse. Activities which do not comply with all relevant reasonable and prudent measures will require further consultation.

NOAA Fisheries believes that the following reasonable and prudent measures are necessary and appropriate to minimize take of MCR steelhead resulting from implementation of the action. The UNF, in respect to their proposed or ongoing activities addressed in this Opinion, shall:

1. Minimize the amount and extent of incidental take resulting from general construction activities, riparian disturbance, and in-water work required to complete the proposed Project addressed in this Opinion.

2. Minimize the likelihood of incidental take from contaminant leaks and spills associated with the use of heavy equipment.

3. Monitor the effects of the proposed action to determine the actual Project effects on listed fish (50 CFR 402.14 (I)(3)). Monitoring should detect adverse effects of the proposed action, assess the actual levels of incidental take in comparison with anticipated incidental take documented in the Opinion, and detect circumstances where the level of incidental take is exceeded.

2.2.4 Terms and Conditions

To be exempt from the prohibitions of section 9 of the ESA, the action must be implemented in compliance with the following terms and conditions, which implement the reasonable and prudent measures described above for each category of activity. These terms and conditions are nondiscretionary.

1. To implement reasonable and prudent measure #1 (general construction, riparian disturbance, and in-water work), the UNF shall ensure that:
   a. Minimum area. Confine construction impacts to the minimum area necessary to complete the Project.
   b. Timing of in-water work. Work below the bankfull elevation[1] will be completed using the most recent in-water work period (presently July 15 to August 20), as appropriate for the Project area, unless otherwise approved in writing by NOAA Fisheries.
   c. Cessation of work. Cease Project operations under high flow conditions that may result in inundation of the Project area, except for efforts to avoid or minimize resource damage.
   d. Preconstruction activity. Complete the following actions before significant[2] alteration of the Project area.
      i. Marking. Flag the boundaries of clearing limits associated with site access and construction to prevent ground disturbance of critical riparian vegetation, wetlands and other sensitive sites beyond the flagged boundary.
      ii. Emergency erosion controls. Ensure that a supply of sediment control materials (*e.g.*, silt fence, straw bales[3]) for emergency erosion control are onsite.
   e. Temporary erosion controls. All temporary erosion controls will be in place and appropriately installed downslope from Project activity within the riparian area until site restoration is complete.
   f. General erosion control. Employ practices to prevent erosion and sedimentation associated with access roads, stream crossings, drilling sites, construction sites, borrow pit operations, haul roads, equipment and material storage sites, fueling operations, staging areas, and roads being decommissioned.
   g. Inspection of erosion controls. During construction, monitor instream turbidity and inspect all erosion controls daily during the rainy season and weekly during

[1] 'Bankfull elevation' means the bank height inundated by a 1.5 to 2-year average recurrence interval and may be estimated by morphological features such average bank height, scour lines and vegetation limits.

[2] 'Significant' means an effect can be meaningfully measured, detected or evaluated.

[3] When available, certified weed-free straw or hay bales will be used to prevent introduction of noxious weeds.

the dry season, or more often as necessary, to ensure the erosion controls are working adequately.[4]

i. If monitoring or inspection shows that the erosion controls are ineffective, mobilize work crews immediately to make repairs, install replacements, or install additional controls as necessary.

ii. Remove sediment from erosion controls once it has reached 1/3 of the exposed height of the control.

h. Heavy equipment. When heavy equipment will be used, the equipment selected will have the least adverse effects on the environment (*e.g.*, minimally sized, low ground pressure equipment).

i. Site preparation. Conserve native materials for site restoration.

i. If possible, leave native materials where they are found.

ii. If materials are moved, damaged or destroyed, replace them with a functional equivalent during site restoration.

iii. Stockpile any large wood,[5] native vegetation, weed-free topsoil, and native channel material displaced by construction for use during site restoration.

j. Isolation of in-water work area. If adult or juvenile MCR steelhead are reasonably certain to be present, or if the work area is 300 feet upstream from spawning habitats, completely isolate the work area from the active flowing stream using inflatable bags, sandbags, sheet pilings, or similar materials, unless otherwise approved in writing by NOAA Fisheries.

k. Capture and release. Before and intermittently during pumping to isolate an in-water work area, attempt to capture and release fish from the isolated area using trapping, seining, electrofishing, or other methods as are prudent to minimize risk of injury.

i. The entire capture and release operation must be conducted or supervised by a fishery biologist experienced with work area isolation and competent to ensure the safe handling of all ESA-listed fish.

ii. Do not use electrofishing if water temperatures exceed 18°C.

iii. If electrofishing equipment is used to capture fish, comply with NOAA Fisheries' electrofishing guidelines.[6]

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[4] 'Working adequately' means that Project activities do not increase ambient stream turbidity by more than 10% above background 100 feet below the discharge, when measured relative to a control point immediately upstream of the turbidity causing activity.

[5] For purposes of this Opinion only, 'large wood' means a tree, log, or rootwad big enough to dissipate stream energy associated with high flows, capture bedload, stabilize streambanks, influence channel characteristics, and otherwise support aquatic habitat function, given the slope and bankfull channel width of the stream in which the wood occurs. See, Oregon Department of Forestry and Oregon Department of Fish and Wildlife, *A Guide to Placing Large Wood in Streams*, May 1995 (www.odf.state.or.us/FP/RefLibrary/LargeWoodPlacemntGuide5-95.doc).

[6] National Marine Fisheries Service, *Backpack Electrofishing Guidelines* (December 1998) (http://www.nwr.noaa.gov/1salmon/salmesa/pubs/electrog.pdf).

iv. Handle ESA-listed fish with extreme care, keeping fish in water to the maximum extent possible during seining and transfer procedures to prevent the added stress of out-of-water handling.
v. Transport fish in aerated buckets or tanks.
vi. Release fish into a safe release site as quickly as possible, and as near as possible to capture sites.
vii. Do not transfer ESA-listed fish to anyone except NOAA Fisheries personnel, unless otherwise approved in writing by NOAA Fisheries.
viii. Obtain all other Federal, state, and local permits necessary to conduct the capture and release activity.
ix. Allow NOAA Fisheries or its designated representative to accompany the capture team during the capture and release activity, and to inspect the team's capture and release records and facilities.

l. Earthwork. Complete earthwork (including drilling, excavation, dredging, filling and compacting) as quickly as possible.
i. Site stabilization. Stabilize all disturbed areas following any break in work unless construction will resume within four days.
ii. Source of materials. Obtain boulders, rock, woody materials and other natural construction materials used for the Project outside the riparian area.

m. Water drafting. Water drafting will be conducted with following protective measures:
i. Water source. Non-stream sources will be used before the use of stream sources whenever feasible. When non-stream sources are unavailable, streams with the greatest flow will be used whenever feasible.
ii. Stream flow. Water withdrawal will not reduce stream flow by more than 1/10. For pumps with adjustable pump rates, pumping rates will be adjusted to avoid drafting more than 1/10 of the current stream flow.
iii. Volume removed. If streams with less than 5 cfs are used for drafting, no more than 18,000 gallons will be removed in one day.
iv. Number of pumps. If streams with less than 5 cfs are used for drafting, no more than one pump will operate at one time at any one drafting site.
v. Adult fish. No water will be drafted from sites where adult salmonids are visibly present to prevent interference with spawning activities. If redds have been located downstream of drafting sites, a UNF fish biologist will ensure water drafting will not have adverse effects on eggs or emergent alevins.

2. To implement reasonable and prudent measure #2 (pollution control), the UNF shall ensure that:

a. Pollution control plan. Prepare and carry out a pollution and erosion control plan to prevent pollution caused by surveying or construction operations. The plan must be available for inspection on request by NOAA Fisheries.

i. Plan contents. The pollution and erosion control plan will contain the pertinent elements listed below, and meet requirements of all applicable laws and regulations.

(1) The name and contact information of the party(s) responsible for accomplishing the pollution and erosion control plan.

(2) Practices to confine, remove and dispose of excess concrete, cement, grout, and other mortars or bonding agents, including measures for washout facilities.

(3) A description of any regulated or hazardous products or materials that will be used for the Project, including procedures for inventory, storage, handling, and monitoring.

(4) A spill containment and control plan with notification procedures, specific cleanup and disposal instructions for different products, quick response containment and cleanup measures that will be available on the site, proposed methods for disposal of spilled materials, and employee training for spill containment.

(5) Practices to prevent construction debris from dropping into any stream or waterbody, and to remove any material that does drop with a minimum disturbance to the streambed and water quality.

b. Vehicle and material staging. Store construction materials and fuel, operate, maintain and store vehicles as follows.

i. To reduce the staging area and potential for contamination, ensure that only enough supplies and equipment to complete a specific job will be stored on-site.

ii. Complete vehicle staging, cleaning, maintenance, refueling, and fuel storage in a vehicle staging area placed outside of any riparian areas, unless otherwise approved in writing by NOAA Fisheries.

iii. Inspect all vehicles operated within an riparian areas daily for fluid leaks before leaving the vehicle staging area. Repair any leaks detected in the vehicle staging area before the vehicle resumes operation. Document inspections in a record that is available for review on request by NOAA Fisheries.

iv. Before operations begin and as often as necessary during operation, steam clean all equipment that will be used below bankfull elevation until all visible external oil, grease, mud, and other visible contaminates are removed.

v. Diaper all stationary power equipment (*e.g.*, generators, cranes, stationary drilling equipment) operated within any riparian area to prevent leaks, unless suitable containment is provided to prevent potential spills from entering any stream or waterbody.

c. Floating boom. An oil-absorbing, floating boom will be onsite whenever surface water is present.

d. Construction discharge water.

i. Pollutants. Do not allow pollutants, including green concrete, vehicle wash water, drilling fluids, contaminated water, silt, welding slag, sandblasting abrasive, or grout cured less than 24 hours, to contact any wetland or the 2-year floodplain.

3. To implement reasonable and prudent measure #3 (monitoring), the UNF shall:

a. Monitoring protocol. The UNF shall develop a monitoring strategy that addresses potential effects on water quality that may result from runoff from newly-paved surfaces. The protocol will:
   i. Be reviewed and approved by the Level 1 Team for consistency with recognized and acceptable methods and suitability for determining both direct and indirect effects to MCR steelhead.
   ii. Be agreed on by the Level 1 Team before the onset of the 2004-2005 winter recreation season.

b. Reporting. Within one year of Project completion, the UNF will submit a monitoring report to NOAA Fisheries with the following information describing the UNF's success in meeting the terms and conditions contained in this Opinion. A Forest-wide monitoring report that includes the following information may be used for this report.

   In either case, include the following information:
   i. Project identification
      (1) Project name.
      (2) Type of activity.
      (3) Project location, by 5th field HUC and by latitude and longitude as determined from the appropriate USGS 7-minute quadrangle map.
      (4) UNF contact person.
      (5) Starting and ending dates for work completed.
   ii. Photo documentation. Photos of habitat conditions at the project and any compensation site(s), before, during, and after project completion.[7]
      (1) Include general views and close-ups showing details of the project and Project area, including pre- and post-construction.
      (2) Label each photo with date, time, project name, photographer's name, and a comment about the subject.
   iii. Other data. Additional project-specific data, as appropriate.
      (1) Work cessation. Dates work ceased due to high flows, if any.
      (2) Fish screen. Evidence of compliance with NOAA Fisheries' fish screen criteria.

[7] Relevant habitat conditions may include characteristics of channels, eroding and stable streambanks in the Project area, riparian vegetation, water quality, flows at base, bankfull and over-bankfull stages, and other visually discernable environmental conditions at the Project area, and upstream and downstream from the Project.

(3) Pollution control. A summary of pollution and erosion control inspections, including any erosion control failure, contaminant release, and correction effort.
(4) Site preparation.
  (a) Total cleared area – riparian and upland.
  (b) Total new impervious area.
(5) Streambank protection.
  (a) Type and amount of materials used.
  (b) Project size – one bank or two, width and linear feet.
(6) Site restoration. Photo or other documentation that site restoration performance standards were met.
(7) Long-term habitat loss. The same elements apply as for monitoring site restoration.

c. Effectiveness monitoring. Gather any other data or analyses the UNF deems necessary or helpful to complete an assessment of habitat trends in stream and riparian conditions as a result of this project. The UNF may use existing monitoring efforts for this purpose if those efforts can provide information specific to the objective of identifying habitat trends.

d. Lethal take. If a sick, injured, or dead specimen of a threatened or endangered species is found, the finder must notify the Vancouver Field Office of NOAA Fisheries Law Enforcement at (360) 418-4246. The finder must take care in handling sick or injured specimens to ensure effective treatment, and in handling dead specimens to preserve biological material in the best possible condition for later analysis of cause of death. The finder also has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not disturbed unnecessarily.

e. Report submission. Submit a copy of the report to the Oregon State Habitat Office of NOAA Fisheries.

Oregon State Director
Oregon State Habitat Office
National Marine Fisheries Service
Attn: 2004/00088
525 NE Oregon Street
Portland, OR 97232

3. MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

3.1 Background

The MSA, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires the inclusion of EFH descriptions in Federal fishery management plans. In addition, the MSA

requires Federal agencies to consult with NOAA Fisheries on activities that will adversely affect EFH.

EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (MSA §3). For the purpose of interpreting the definition of EFH: "Waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; "substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities; "necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle (50 CFR 600.110).

Section 305(b) of the MSA (16 U.S.C. 1855(b)) requires that:

- Federal agencies must consult with NOAA Fisheries on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH;

- NOAA Fisheries shall provide conservation recommendations for any Federal or state activity that may adversely affect EFH;

- Federal agencies shall, within 30 days after receiving conservation recommendations from NOAA Fisheries, provide a detailed response in writing to NOAA Fisheries regarding the conservation recommendations. The response shall include a description of measures proposed by the agency for avoiding, mitigating or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the conservation recommendations of NOAA Fisheries, the Federal agency shall explain its reason for not following the recommendations.

The MSA requires consultation for all actions that may adversely affect EFH, and does not distinguish between actions within EFH and actions outside EFH. Any reasonable attempt to encourage the conservation of EFH must take into account actions that occur outside EFH, such as upstream and upslope activities, that may have an adverse effect on EFH. Therefore, EFH consultation with NOAA Fisheries is required by Federal agencies undertaking, permitting or funding activities that may adversely affect EFH, regardless of its location.

3.2 Identification of EFH

The Pacific Fisheries Management Council (PFMC) has designated EFH for three species of Pacific salmon: Chinook (*Oncorhynchus tshawytscha*); coho (*O. kisutch*); and Puget Sound pink salmon (*O. gorbuscha*) (PFMC 1999). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other waterbodies currently or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream from certain impassable man-made barriers (as identified by the PFMC), and longstanding, naturally-impassable barriers (*e.g.*, natural waterfalls in existence for several hundred years). Detailed

descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14 to the *Pacific Coast Salmon Plan* (PFMC 1999). Assessment of potential adverse effects to these species' EFH from the proposed action is based on this information.

3.3 Proposed Actions

The proposed action is detailed above in section 1.2 of the ESA portion of this Opinion. The action area includes watersheds within the Walla Walla subbasin. This area has been designated as EFH for various life stages of chinook salmon.

3.4 Effects of Proposed Action

The effects on chinook and coho salmon are the same as those for MCR steelhead and are described in detail in section 2.2.1 of this document. The proposed action may result in short-term and long-term adverse effects on a variety of habitat parameters. These adverse effects are:

1. Riparian disturbance from accessing construction area and construction activities performed from the bank.

2. Increased sedimentation from instream construction activities.

3.5 Conclusion

NOAA Fisheries believes that the proposed action will adversely affect EFH for chinook salmon.

3.6 EFH Conservation Recommendations

Pursuant to section 305(b)(4)(A) of the MSA, NOAA Fisheries is required to provide EFH conservation recommendations for any Federal or state agency action that may adversely affect EFH. In addition to conservation measures proposed for the project by the UNF, all of the reasonable and prudent measures and the terms and conditions contained in section 2.2.4 of the ESA portion of this Opinion are applicable to salmon EFH. Therefore, NOAA Fisheries incorporates each of those measures here as EFH conservation recommendations.

3.7 Statutory Response Requirement

The MSA (section 305(b)) and 50 CFR 600.920(j) require the UNF to provide a written response to NOAA Fisheries' EFH conservation recommendations within 30 days of its receipt of this letter. The response must include a description of measures proposed to avoid, mitigate, or offset the adverse impacts of the activity on EFH. If the response is inconsistent with NOAA Fisheries' conservation recommendations, the UNF shall explain its reasons for not following the recommendations.

3.8 Supplemental Consultation

The UNF must reinitiate EFH consultation with NOAA Fisheries if either the action is substantially revised or new information becomes available that affects the basis for NOAA Fisheries' EFH conservation recommendations (50 CFR 600.920).

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